



UTAH DEPARTMENT OF HEALTH
DIVISION OF COMMUNITY HEALTH SERVICES
BUREAU OF EPIDEMIOLOGY

Suzanne Dandoy, M.D., M.P.H.
Executive Director

COMMUNICABLE DISEASE NEWSLETTER

J Brett Lazar, M.D., M.P.H., Director
Division of Community Health Services

EDITOR: Craig R. Nichols, M.P.A., State Epidemiologist
Director, Bureau of Epidemiology
(801) 533-6191

MONTH February YEAR 1986

CONTENTS

1. Malaria Prophylaxis by Travelers to Areas With CRPF
2. Tuberculosis and the Possible Impact of HTLV-III/LAV Infection
3. Gonorrhea Morbidity Increase 1985
4. Apparent Transmission of HTLV-III/LAV From a Child to a Mother Providing Health Care

MALARIA PROPHYLAXIS BY TRAVELERS TO AREAS WITH CHLOROQUINE-RESISTANT Plasmodium falciparum (CRPF)¹

"On April 12, 1985, new recommendations for malaria prophylaxis were published by the Centers for Disease Control (CDC) in response to evidence that weekly use of pyrimethamine/sulfadoxine (Fansidar^R) for malaria prophylaxis was associated with fatal cutaneous reactions. These revised recommendations emphasized the weekly use of chloroquine or amodiaquine as the mainstay of chemoprophylaxis, and urged that the weekly prophylactic use of Fansidar^R be limited to longer-term (more than three weeks) travelers who will be at very high risk of exposure to chloroquine-resistant Plasmodium falciparum (CRPF). It was further recommended that short-term (three weeks or less) travelers to areas with CRPF carry 3 tablets (adult dose) of Fansidar to take presumptively in the event of a febrile illness when professional medical care is not readily available. Finally, the importance of personal protection from mosquito contact by use of insect repellants, insect sprays, nets, and screens was stressed.

"To date 60 cases of P. falciparum have been reported to CDC with onset of illness in 1985 in U.S. travelers who acquired their infection in Kenya, where CRPF is widely prevalent. Of particular concern is that only 4 (24%) of 17 investigated cases who had traveled to Kenya after April 1985 were aware of the recommendation for presumptive treatment with Fansidar. Furthermore, only 7 (41%) of these 17 cases had used insect repellants. These findings indicate a need for better adherence to the April recommendations. It is essential that the treatment dosage of Fansidar and the indications for its use be explained thoroughly to travelers to CRPF areas such as Kenya because responsibility is placed on them to recognize a potential malaria infection and, if necessary, treat themselves while abroad. The current CDC guidelines for malaria prophylaxis for travelers, published in Morbidity and Mortality Weekly Report (MMWR, April 12, 1985), in Advisory Memorandum No. 80 (April 24, 1985), and in Health Information for International Travel (1985), contain detailed recommendations for travelers to different destinations, taking into account the risk of malaria infection."

Reference

- 1 Centers for Disease Control, Public Health Service, Advisory Memorandum No. 83, January 6, 1986.

TUBERCULOSIS - UNITED STATES, 1985
AND THE POSSIBLE IMPACT OF HUMAN T-LYMPHOTROPIC VIRUS TYPE III/
LYMPHADENOPATHY-ASSOCIATED VIRUS INFECTION¹

"In 1985, a provisional total of 21,801 tuberculosis cases was reported to CDC, a 2.0% decline from the 1984 final total of 22,255 cases. Similarly, in 1985, the provisional incidence rate was 9.1 per 100,000 population, a decline of 3.2% from the 1984 final rate of 9.4/100,000. Compared with 1983, the number of reported cases in 1984 declined progressively, so that by week 52, there were 2,139 fewer cumulative provisional reported cases. Compared with 1984, there was no such progressive decline in 1985.

"From 1975 through 1978, the average annual decrease in reported tuberculosis cases was 5.7%. From 1978 through 1981, when there was a large influx of Southeast Asian refugees, the average decline was only 1.4%. The average decline of 6.7% from 1982 through 1984 indicated that the previous downward trend had resumed. The 2.0% decline in 1985 thus represents another slowing of this trend.

"Although the reasons for the relatively small decline in 1985 cases are not fully known, evidence supports the hypothesis that human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV) infection of persons infected with the tubercle bacillus has caused an increase in tuberculosis in some areas.

"The suspicion that HTLV-III/LAV infection may be responsible for increased tuberculosis morbidity is based on the following:

1. Since other immunosuppressive disorders are associated with an increased risk of developing clinically apparent tuberculosis, there is a theoretical reason to believe that compromised immunity secondary to HTLV-III/LAV infection may favor activation of preexisting latent Mycobacterium tuberculosis infection.
2. Some of the areas with the largest tuberculosis morbidity increases this year (New York City, California, Florida, Texas) are also some of the areas that have reported the largest number of acquired immunodeficiency syndrome (AIDS) cases to date.
3. Data from New York City indicate that increased tuberculosis morbidity is occurring in areas of the city where most AIDS cases have occurred. Matching the New York City tuberculosis and AIDS case registers has revealed increasing numbers of AIDS patients with histories of tuberculosis. An increasing number of persons with histories of intravenous drug abuse--a known risk factor for AIDS--have been diagnosed as having tuberculosis.
4. In Dade County, Florida, a substantial number of persons with AIDS either had tuberculosis at the time AIDS was diagnosed or had it within the 18 months preceding the AIDS diagnosis. Based on an analysis in progress, 109 (10.0%) of the 1,094 AIDS patients reported to CDC from Florida through December 31, 1985, have also been diagnosed with tuberculosis.

"GDC's division of Tuberculosis Control, Center for Prevention Services, is working closely with the Florida and Dade County health departments and the New York City Department of Health in designing and conducting studies" to determine the relationship between infection with HTLV-III/LAV and tuberculosis.

Reference: ¹ Centers for Disease Control, Morbidity and Mortality Weekly Report, Vol. 35/No. 5, February 7, 1986.

1985 GONORRHEA MORBIDITY INCREASE

During 1985, Utah reported a total of 1,388 cases of gonorrhea, representing an increase of 6.1% over the 1,308 cases reported in 1984. Gonorrhea morbidity was reported from 19 (65.5%) of Utah's 29 counties:

Table 1
Gonorrhea Cases in Utah - 1985

Box Elder	14
Cache	15
Carbon	1
Davis	180
Duchesne	1
Emery	1
Kane	1
Millard	1
Rich	1
Salt Lake	853
San Juan	38
Sanpete	4
Summit	13
Tooele	6
Uintah	8
Utah	39
Washington	18
Wayne	1
Weber	193
UTAH TOTAL	1,388

During calendar year 1985, gonorrhea continued to be reported primarily from the following age groups:

<u>AGE</u>	<u>CASES</u>	<u>% OF TOTAL REPORTED</u>
15-19	315	22.7
20-24	540	38.9
25-29	270	19.5
30-34	133	9.6

Prior to 1985, gonorrhea rates and total cases had declined steadily since 1977. The major reason for the increase is speculated to be the number of cases not detected because of unsatisfactory culture results. Therefore, actual cases are not being detected and treated and may continue to transmit the disease.

Apparent Transmission of Human T-Lymphotropic Virus Type III/ Lymphadenopathy-Associated Virus from a Child to a Mother Providing Health Care

CDC has received a report from state and local health officials of a child with transfusion-associated infection caused by human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV), the virus that causes acquired immunodeficiency syndrome (AIDS). The child's mother appears to have been infected with HTLV-III/LAV while providing nursing care that involved extensive unprotected exposure to the child's blood and body secretions and excretions.

The child, a 24-month-old male, was diagnosed as having a congenital intestinal abnormality on day 4 of life. Over the next several months, he had numerous surgical procedures, including colonic and ileal resections, repairs of ostomies, a liver biopsy, and intravascular catheter replacements. The child has been hospitalized 17 months and has required intravenous hyperalimentation and continuous nasogastric feedings throughout his life. His illness was also characterized by frequent bouts of bacterial sepsis, many of which were apparently related to his gastrointestinal disease and indwelling intravascular catheter. Because of anemia due to chronic illness, multiple surgical procedures, gastrointestinal bleeding, and frequent blood drawing, the child required multiple transfusions between birth (February 1984) and early June 1985.

Because of the child's history of both recurrent bacterial sepsis and multiple transfusions, a blood sample was drawn for HTLV-III/LAV antibody in May 1985. This sample, and a second sample obtained 3 months later, were both positive by enzyme immunoassay (EIA); the second sample was tested by Western blot assay and was positive. In June 1985, the ratio of T-helper to T-suppressor lymphocytes (T_H/T_S) was normal (1.6). Serum obtained during an investigation in December 1985 was strongly positive for antibody to HTLV-III/LAV by EIA (absorbance > 2.0, negative cutoff = 0.083, absorbance ratio > 24). Western blot assay at CDC was positive for both the p24 and gp41 bands.* Cultures of the child's peripheral blood lymphocytes, saliva, and stools for HTLV-III/LAV have been negative.

Blood from 26 donors had been transfused to the child between birth and June 1985. One of these donors was a 34-year-old female whose serum, obtained in January 1986, was strongly positive for antibody to HTLV-III/LAV by both EIA (absorbance ratio > 20) and Western blot assay (positive gp41 and equivocal p24 bands). Her blood was transfused to the child in May 1984 before serologic testing of donors for HTLV-III/LAV was available. All other donors were seronegative.

The child's 32-year-old mother has been closely involved in the child's care during hospitalization and at home, which has required frequent contact with the child's blood and with other body fluids. Her activities included drawing blood through the child's indwelling catheter at least weekly, removing peripheral intravenous lines occasionally, emptying and changing ostomy bags daily for the 7 months these were in place, inserting rectal tubes daily to facilitate large-bowel clearing, changing diapers and surgical dressings, and changing nasogastric feeding tubes weekly. When interviewed, she did not recall any specific incidents of needlesticks or other parenteral exposures to the child's blood. However, the mother did not wear gloves, and on numerous occasions, her hands became contaminated with blood, feces (which often contained blood), saliva, and nasal secretions. She did not recall having open cuts or an exudative dermatitis on her hands; however, she often did not wash her hands immediately after blood or secretion contact.

In March, June, and October 1985, the mother donated blood; none of her donated blood was given to her child. As part of routine blood-donor screening, the blood was tested for HTLV-III/LAV antibody. She was seronegative by EIA in March and June. In October, a serum sample was repeatedly positive by EIA and was confirmed by Western blot assay. Serum obtained during an investigation in December 1985, and the October 1985 specimen, were both strongly positive by EIA (absorbance ratio > 24) and Western blot assay (positive p24 and gp41 bands) at CDC.* The mother remains clinically well; however, her T_H/T_S ratio was 0.9 (normal > 1.0) when tested in December 1985. Culture of her peripheral blood lymphocytes for HTLV-III/LAV was negative.

Extensive epidemiologic investigations did not reveal any other risk factors for infection in the mother or child. The mother was employed as a paramedic before the child's birth but denied needlestick injuries or exposure to AIDS patients. The child's father is negative for HTLV-III/LAV antibody* and is clinically well with a normal T_H/T_S ratio of 2.4.

Reported by AIDS Program, Center for Infectious Diseases, CDC.

Editorial Note: The child reported here most likely acquired the infection from transfusion of blood donated in May 1984 by a donor later found to be seropositive. The child's mother most likely acquired HTLV-III/LAV infection from her son while providing nursing care that involved extensive contact with his blood and other body secretions and excretions. She did not take precautions, such as wearing gloves, and often failed to wash her hands immediately after exposure.

Epidemiologic investigations did not reveal other risk factors for HTLV-III/LAV infection in the mother. The timing of her seroconversion (between June and October 1985) suggests that her exposure occurred after the birth of her child (February 1984). Limited case reports suggest that the seroconversion period for HTLV-III/LAV is approximately 1-8 months (1-3); there are no published reports of seroconversion periods greater than 8 months. Although initial attempts at virus isolation from the mother and child have been negative, the EIAs have been repeatedly reactive from multiple specimens in separate laboratories. The high absorbance ratios and presence of strong bands reacting to specific viral proteins on Western blot assay are most consistent with HTLV-III/LAV infection.

Previous CDC guidelines have emphasized that in hospital, institutional, and home-care settings, health-care workers or other persons providing care for patients with HTLV-III/LAV infection should wear gloves routinely during direct contact with the mucous membranes or nonintact skin of such patients (4). They should also wear gloves when handling items soiled with blood or other body secretions or excretions. Additional precautions, such as wearing gowns, masks, or eye coverings, may be appropriate if procedures involving more extensive contact with blood or other body secretions or excretions are performed. Education and foster care of children infected with HTLV-III/LAV, such as the child reported here, who lack control of their body secretions or excretions require special considerations as outlined previously (5).

Transmission of HTLV-III/LAV infection from child to parent has not been previously reported. The contact between the reported mother and child is not typical of the usual contact that could be expected in a family setting. None of the family members of the over 17,000 AIDS patients reported to CDC have been reported to have AIDS, except a small number of sexual partners of patients; children born to infected mothers; or family members who themselves had other established risk factors for AIDS. Seven studies involving over 350 family members of both adults and children with AIDS have not found serologic or virologic evidence of transmission of HTLV-III/LAV infection within families other than among sex partners, children born to infected mothers, or family members with risk factors for AIDS (6-12).

Although transmission of HTLV-III/LAV in the health-care setting has been reported, such transmission has been extremely rare. In five separate studies, a total of 1,498 health-care workers have been tested for antibody to HTLV-III/LAV. In these studies, 866 (44.5%) of the workers had direct parenteral (needlestick or cut) or mucous-membrane exposure to patients with AIDS or HTLV-III/LAV infection. Twenty-six persons in these five studies were seropositive when first tested; all but three of these persons belonged to groups recognized to be at increased risk for AIDS (13-17).

CDC is aware of only one other case in which HTLV-III/LAV transmission from a patient to a person providing care may have occurred through a nonparenteral route (18). In this report from England, a 44-year-old woman, who was not a health-care worker, developed AIDS after she had provided home nursing care for a Ghanaian man who was diagnosed with AIDS at postmortem examination. The care involved prolonged and frequent skin contact with body secretions and excretions. The woman recalled having some small cuts on her hands and an exacerbation of chronic eczema. She denied any sexual contact with the patient.

The occurrences of the case reported here and the English case suggest that HTLV-III/LAV infection may, on rare occasions, be transmitted during unprotected contact with blood or other potentially infectious body secretions or excretions in the absence of known parenteral or sexual exposure to these fluids. Adherence to published guidelines for health-care workers (4) should prevent transmission through exposure to blood or body fluids.

*Results confirmed by competitive EIA for HTLV-III antibody performed by the Laboratory of Tumor Cell Biology, National Cancer Institute.

Reference

- 1 Centers for Disease Control. Morbidity and Mortality Weekly Report. Vol. 35/No. 5, February 7, 1986.

WASATCH CITY-COUNTY HEALTH DEPARTMENT

BOARD MEMBERS

CALVIN GILES - CHAIRMAN
COUNTY

CONNIE TATTON - VICE CHAIRMAN
MIDWAY

ELIZABETH MURDOCK - MEMBER
HEBER

RULON PHILLIPS - MEMBER
WALLSBURG

LYNN WEBSTER - MEMBER
CHARLESTON

R. RAYMOND GREEN, MD - MEDICAL OFFICER
HEBER CITY

R. C. TADD - CHAIRMAN
COUNTY

805 WEST 100 SOUTH
HEBER CITY, UTAH 84032
PHONE (801) 654-2700

February 7, 1986

STAFF

PHIL D. WRIGHT, M.S., R.S.
HEALTH OFFICER

MAXINE MCAFFEE, R.N.
NURSING DIRECTOR

MAREN DURTSCHI, R.N.
COMMUNITY HEALTH NURSE

RANAE WILLIAMS, R.D.
NUTRITIONIST/EDUCATOR

ROBERT BLANTHORN, M.S.W.
ALCOHOL/DRUG DIRECTOR

NELDA DUKE
OFFICE MANAGER

MEMO

TO: All Local Physicians and Dentists

FROM: Maxine McAfee, R.N.

RE: Sodium Fluoride Program Guidelines

Attached is a copy of the Wasatch City-County Health Department Sodium Fluoride Program Guidelines. We felt you might be interested in the various fluoride levels in Wasatch County.

Through a Child Health Grant until July, 1986 fluoride drops and tablets are now available at a minimum charge through the Wasatch City-County Health Department. If you have any questions please contact Maxine McAfee, Director of Nursing at 654-2700.

WASATCH CITY-COUNTY HEALTH DEPARTMENT

BOARD MEMBERS

CALVIN GILES - CHAIRMAN
COUNTY

CONNIE TATTON - VICE CHAIRMAN
MIDWAY

ELIZABETH MURDOCK - MEMBER
HEBER

RULON PHILLIPS - MEMBER
WALLSBURG

LYNN WEBSTER - MEMBER
CHARLESTON

R. RAYMOND GREEN, MD - MEDICAL OFFICER
HEBER CITY

R. C. TADD - CHAIRMAN
COUNTY

805 WEST 100 SOUTH
HEBER CITY, UTAH 84032
PHONE (801) 654-2700

December 23, 1985

STAFF

PHIL D. WRIGHT, M.S., R.S.
HEALTH OFFICER

MAXINE MCAFFEE, R.N.
NURSING DIRECTOR

MAREN DURTSCHI, R.N.
COMMUNITY HEALTH NURSE

RANAE WILLIAMS, R.D.
NUTRITIONIST/EDUCATOR

ROBERT BLANTHORN, M.S.W.
ALCOHOL/DRUG DIRECTOR

NELDA DUKE
OFFICE MANAGER

WASATCH CITY-COUNTY HEALTH DEPARTMENT SODIUM FLUORIDE PROGRAM GUIDELINES

1. All children from birth to age fourteen are eligible to receive sodium fluoride unless there is adequate fluoride in their water supply.

A. Well water can be tested by the State for fluoride concentration if this is the primary water source. Samples can be sent to Karen Zinner, State Department of Dental HEALTH.

2. Fluoride will be prescribed according to the following dosage when natural water content is less than 0.3 ppm:

Birth-Age 2	0.25 mg/ day
Age 2- Age 3	0.50 mg/day
Age 3- Age 14	1.00 mg/day

Children who are served by water sources where natural fluoride is 0.3 ppm or more (this includes the Daniel Bethers, Daniel Domestic, and Interlaken Water Systems) shall have fluoride prescribed at the following dosage:

Birth - Age 2	0
Age 2- Age 3	0.25 mg/day
Age 3 - Age 14	0.50 mg/day

Each bottle will be labeled with the appropriate dosage for the child's age.

3. Administration and Instructions:

Drops: Infants should swallow the drops.

Tablets: Children should chew, swish, and swallow for both topical and systemic effect.

--Bottles will be labeled with appropriate instructions.

--The Nurse will give oral instructions when delivering the drug.

4. Risks: Continued excessive dosage may lead to cosmetic mottling of teeth.
5. Overdose: Ingestion of approximately 15 tablets usually causes vomiting.
Ingestion of 250 tablets could be fatal to an infant.
 - A. Nurse will instruct parent to safely store fluoride out of the reach of children.
 - B. All bottles will contain safety caps and will be labeled "Keep Out of Reach of Children."
6. Allergy: No allergies to fluoride are known. Allergy to dye or binders is possible.
7. Contraindications: Natural or adjusted fluoride level in water greater than 0.7ppm.
8. Fluoride will be supplied in maximum bottles of 100 tablets or 24 ml. One bottle may be prescribed per child per visit.

WASATCH CITY/COUNTY BOARD OF HEALTH

AGENDA

, FEBRUARY 10, 1986

12:00 NOON

HEALTH OFFICES

WELCOME:

INVOCATION:

APPROVAL OF MINUTES:

WIC:

WELL CHILD:

IMMUNIZATION:

HYPERTENSION:

DENTAL HEALTH:

BLAZING SADDLES UPDATE:

DRY SUB DIVISION ORDINANCE: (Meet with COG)

TED FOWELLS LETTER:

HOT SPRINGS:

ASBESTOS SURVEY:

EPA PROPOSED REGULATIONS:

JORDANELLE RESERVOIR: BoFR LETTER_

EMS COUNCIL:

GROUND WATER STUDY:

WATER SEMINAR:

OTHER:

WASATCH CITY/COUNTY BOARD OF HEALTH

AGENDA

FEBRUARY 10, 1986

12:00 NOON

HEALTH OFFICES

✓ WELCOME:

✓ INVOCATION:

✓ APPROVAL OF MINUTES:

✓ 1985 253 tetanus cases
Drug ⁵³ Whooping Cough - 21 Feb
WIC: 289 = 153 families \$1500 Patty Tucker Total Admin \$10,000 Food -
✓ Larry Report - Group Therapy 6 Case Load 50 - By Day's
✓ WELL CHILD: 22 Jan Expanded - Referral to Dr & Meds. Florides age 14 Fl.

✓ IMMUNIZATION: 65

✓ HYPERTENSION: 20

✓ DENTAL HEALTH: Flourides { Pilot
Smile Factory - Central - screen 3, 4, 5, & Kids
27 Feb

✓ BLAZING SADDLES UPDATE: Plans submitted, no time table,
not submitted.

✓ DRY SUB DIVISION ORDINANCE: (Meet with COG)

✓ TED FOWELLS LETTER: - Lee way on hook up fees.
Rural Water - Meeting - Teaching Program -

✓ HOT SPRINGS:

✓ ASBESTOS SURVEY:

✓ EPA PROPOSED REGULATIONS:

✓ JORDANELLE RESERVOIR: BOFR LETTER -
Deer Creek water Study

EMS COUNCIL:

GROUND WATER STUDY:

✓ WATER SEMINAR:

OTHER:

Sampling program 15 Jan.

MINUTES OF THE WASATCH CITY-COUNTY BOARD OF HEALTH

February 10, 1986

12:10 P.M.

Health Offices

Present were:

Calvin Giles	Chairman
Connie Tatton	Vice-chairman
Elizabeth Murdock	Member
R. Raymond Green, MD	Medical Officer
Phil D. Wright	Health Officer
Maxine McAfee	Nurse Supervisor
Ranae Williams	Nutritionist/Educator
Larry Carcelli, Ph.D.	Mental Health
Nelda Duke	Secretary

Excused:

Rulon Phillips
R. C. Tadd
Robert Blanthorn

- Welcome:** Mr. Giles welcomed those present and called the meeting to order.
- Invocation:** Mr. Giles offered the invocation.
- Minutes:** Minutes of the meeting held January 6, 1986 were read by Mrs. Duke. Minutes were corrected and Mrs. Tatton made a motion minutes be approved as corrected. Dr. Green seconded motion. Motion carried.
- Alcohol/Drug:** Mr. Wright stated that Mr. Blanthorn was excused from meeting because he was teaching a class. He reported the state had recently audited the Alcohol/Drug program and everything seemed to be in good order and going well. Because of recent cutbacks it was mentioned that the county will be unable to put any monies in the Alcohol/Drug program. It will have to be funded entirely through state and federal monies.
- Mental Health:** Mr. Carcelli reported his group has been meeting for about two months and he expects to start more groups in the Spring. Everything seems to be going very well.
- WIC:** Mrs. McAfee reported we have 289 clients on the WIC program this involves 153 families. We recently requested and received \$1500 for janitorial services and for paying part of a 2½ hour increase in secretarial services.
- Well Child Clinics:** Mrs. McAfee reported 22 children were seen in our Well Child clinics in January and we are receiving a contract for expanded well child services. This will allow us to refer children of families who do not have sufficient income for further medical services.

WASATCH CITY-COUNTY HEALTH DEPARTMENT

#1

BOARD MEMBERS**CALVIN GILES - CHAIRMAN**
COUNTY**CONNIE TATTON - VICE CHAIRMAN**
MIDWAY**ELIZABETH MURDOCK - MEMBER**
HEBER**RULON PHILLIPS - MEMBER**
WALLSBURG**LYNN WEBSTER - MEMBER**
CHARLESTON**R. RAYMOND GREEN, MD - MEDICAL OFFICER**
HEBER CITY**R. C. TADD - CHAIRMAN**
COUNTY**805 WEST 100 SOUTH**
HEBER CITY, UTAH 84032
PHONE (801) 654-2700**STAFF****PHIL D. WRIGHT, M.S., R.S.**
HEALTH OFFICER**MAXINE MCAFFEE, R.N.**
NURSING DIRECTOR**MAREN DURTSCHI, R.N.**
COMMUNITY HEALTH NURSE**RANAE WILLIAMS, R.D.**
NUTRITIONIST/EDUCATOR**ROBERT BLANTHORN, M.S.W.**
ALCOHOL/DRUG DIRECTOR**NELDA DUKE**
OFFICE MANAGER**IMMUNIZATION COSTS**

Nursing Salary	\$1,300
Nursing Benefits	455
Total	\$1,755

Clerical Salary	\$ 952
Clerical Benefits	333
Total	\$1,285

Administration Costs	\$ 250
----------------------	--------

Supplies

Clinic	\$ 506
Office	80
Postage	132
Total	\$ 718

Total \$4,008

Total Immunization 1985 = 1395 doses

$$\$4,008 / 1395 = \$2.87 / \text{dose}$$

Figures are based on - 132 hours nursing time per year
126 hours clerical time per year

Fluoride Program: Mrs. McAfee stated a fluoride program will be carried out by our department under the Extended Well Child Contract. Fluoride will be available at a nominal fee for children up to 14 years old.

Immunization: Phil stated at the request of the state we made a study of the cost of immunizations. (See copy). We now charge \$2.00 per child but the study shows it costs approximately \$2.87 per dose. Mrs. McAfee stated we have had an audit of the kindergarten immunization records in the Central school and all records were up to date.

Hypertension: Mrs. McAfee reported we checked 20 people for blood pressure in January.

Dental Health Program: Mrs. Williams stated we are conducting a special dental screening program on February 27th called the "Smile Factory". The Central Elementary school was targeted to carry out this program for 3rd, 4th, and 5th grade students. Local dentists will screen students and high risk children will receive a \$40 voucher which will enable them to visit their dentist for further care.

Blazing Saddles Cafe: Mr. Wright reported the Blazing Saddles submitted plans to the health department. They did not submit a time table but closed the establishment for ten days to do remodeling. They installed a new doorway to the restrooms and remodeled rest rooms and installed a three-compartment sink. The state will inspect when remodeling is completed.

Dry Subdivision Ordinance: Mr. Wright stated he had submitted a copy of a Dry Subdivision Ordinance to the county attorney. After some discussion Mrs. Tatton made a motion Mr. Wright submit a copy of this ordinance to the Council of Governments for their support then take the necessary steps to adopt the ordinance. Mrs. Murdock seconded motion. Motion carried.

Fowells in Timberlakes: Mr. Wright stated he had received a letter from Mr. Fowells who wants to build a cabin in Timberlakes which will take about three years. He would like a clearance for a sewage system without hooking onto the water system. After some discussion the board suggested we insist he gets water approval before we give him a clearance for sewage system.

**Jordanelle
Impact Study:**

Mr. Wright stated Commissioner Allred had met with the Bureau of Reclamation regarding the impact study of Jordanelle. They replied with a letting saying the impact on our county would be minimal. Mr. Wright then wrote a letter to Commissioner Allred (see copy). Dr. Green made a motion we forward a copy of this letter to the Bureau of Reclamation stating we do not think Jordanelle will have only a minimal impact on our county. Motion seconded by Mrs. Tatton. Motion carried.

**Emergency Medical
Service Council:**

Mr. Wright said the County Commission had asked him to serve on the Emergency Medical Service Council. The law mandates that each county have a EMS council in order to receive state monies. Mr. Wright asked if the board needs anything from the EMS council to let him know.

**Ground Water
Study:**

Mr. Wright stated there were monies available for the study of groundwater and it was suggested we make a study on the quality of our underground water. This study will soon begin.

Meeting adjourned at 1:45 P.M.

Next Meeting:

The next meeting was scheduled for Monday, March 17th 12:00 noon in the health offices.

Chairman

WASATCH CITY-COUNTY HEALTH DEPARTMENT

BOARD MEMBERS

CALVIN GILES - CHAIRMAN
COUNTY

CONNIE TATTON - VICE CHAIRMAN
MIDWAY

ELIZABETH MURDOCK - MEMBER
HEBER

RULON PHILLIPS - MEMBER
WALLSBURG

LYNN WEBSTER - MEMBER
CHARLESTON

R. RAYMOND GREEN, MD - MEDICAL OFFICER
HEBER CITY

R. C. TADD - CHAIRMAN
COUNTY

805 WEST 100 SOUTH
HEBER CITY, UTAH 84032
PHONE (801) 654-2700

February 4, 1986

STAFF

PHIL D. WRIGHT, M.S., R.S.
HEALTH OFFICER

MAXINE MCAFFEE, R.N.
NURSING DIRECTOR

MAREN DURTSCHI, R.N.
COMMUNITY HEALTH NURSE

RANAE WILLIAMS, R.D.
NUTRITIONIST/EDUCATOR

ROBERT BLANTHORN, M.S.W.
ALCOHOL/DRUG DIRECTOR

NELDA DUKE
OFFICE MANAGER

COPY

Commissioner Lorin E. Allred
Wasatch County Board of County Commissioners
25 North Main
Heber City, Utah 84032

Dear Commissioner Allred:

I received a copy of a letter sent to you from the Bureau of Reclamation regarding the anticipated impact of Jordanelle Reservoir in Wasatch County.

The letter states that construction related impact will be minimal in "health, law enforcement and so on". Minimal from the stand point a large bureau such as the Bureau of Reclamation in reality may be a major impact on a small public service agency like the Wasatch City-County Health Department.

Our limited staff has already been inundated with requests for the plan review and information related to recreational vehicle camps, mobile home parks, summer home developments, food service facilities and the like. From past experiences we have found that problems of proper waste water disposal and water supply follows any large scale construction effort which takes a lot of time for a local health department to correct. We have already expended a lot of time and effort in dealing with the impacts of this project that has left us short in other environmental efforts.

It is hard to come up with the exact number of man hours that have already resulted from this project and even more difficult to estimate additional impact on the health department, but we do feel that it will be more than "minimal".

I hope this letter will bring to light the concern that we have as a health department. I will be discussing this topic at our next board meeting. If you have any feelings that we should be aware of, please let me know.

Thank you,

Phil D. Wright, R.S., M.S.
Health Officer

PDW/pt

RULES & REGULATIONS RESPECTING THE PROHIBITION OF "DRY"
RECREATIONAL SUBDIVISIONS LOCATED IN WASATCH COUNTY, UTAH

WHEREAS, pursuant to U.C.A. 26-24-20, 1953 as amended, the Wasatch City/County Health Department is granted authority to adopt rules, regulations, and standards, not in conflict with rules promulgated by the Department of Health of the State of Utah, which are necessary for the promotion of public health, environmental health quality, injury control and the prevention of outbreaks and spread of communicable diseases; and

WHEREAS, it is the opinion and position of the Utah State Department of Health, Division of Environmental Health, that "dry" recreational subdivisions without a piped water system, or with no demonstrated means for developing acceptable individual water supply systems, should not be approved by local government authorities; and

WHEREAS, said opinion has been disseminated by written memorandum to all health officers and environmental health supervisors of all local health departments; and

WHEREAS, the State of Utah, from years of experience in reviewing environmental health aspects of recreational subdivisions has reached the conclusion that the existance of "dry" subdivisions contributes to a number of actual and potential public health problems; and

WHEREAS, further it is the position of the State of Utah that local ordinances and regulations should be reviewed for adequacy, and where necessary, modified to clearly prohibit approval of "dry" subdivisions; and

WHEREAS, it is in the public interest that rules and reguations be adopted in order to avoid actual and potential public health problems;

NOW , THEREFORE, BE IT ORDAINED BY THE BOARD OF HEALTH OF THE WASATCH CITY/COUNTY HEALTH DEPARTMENT, HAVING JURISDICTION IN ALL CITIES, TOWNS AND UNINCORPORATED AREAS IN WASATCH COUNTY, UTAH, THE FOLLOWING RULES AND REGULATIONS:

- I That for the purpose of this regulation a "dry" subdivision shall be defined as any subdivision without a piped public water system, or with no demonstrated means of developing acceptable individual water supply systems.

- II All "dry" recreational subdivisions shall be prohibited within the boundaries of Wasatch County, Utah.
- III The hauling of culinary water shall not be a substitute for a permanent water system.
- IV The hauling of culinary water will only be approved on a temporary emergency condition as determined by the Department.
- V Evidence of water rights for culinary use be submitted to the Wasatch City/County Health Department before approval of any recreational subdivision.
- VI All water systems shall be pressurized and shall otherwise meet all of the requirements of the Utah Plumbing Code. For the purposes of this regulation an elevated cistern shall not constitute a pressurized water system for approval of subdivisions.
- VII All culinary water shall meet the quality and quantity standards of the State of Utah and Wasatch County.
- VIII All subdivisions shall meet the minimum sanitary facilities of the Utah Plumbing Code.
- IX All waste water facilities shall comply with the existing Utah State Regulations for Wastewater Disposal Systems.

ADOPTED by the Health Council of the Wasatch City/County Health Department this the ____ day of _____ 19____.

Chairman, Board of Health

ATTEST:

_____.

WASATCH CITY-COUNTY HEALTH DEPARTMENT

BOARD MEMBERS

CALVIN GILES - CHAIRMAN
COUNTY

CONNIE TATTON - VICE CHAIRMAN
MIDWAY

ELIZABETH MUROCK - MEMBER
HEBER

RULON PHILLIPS - MEMBER
WALLSBURG

LYNN WEBSTER - MEMBER
CHARLESTON

R. RAYMOND GREEN, MD - MEDICAL OFFICER
HEBER CITY

R. C. TADD - CHAIRMAN
COUNTY

805 WEST 100 SOUTH
HEBER CITY, UTAH 84032
PHONE (801) 654-2700

STAFF

PHIL D. WRIGHT, M.S., R.S.
HEALTH OFFICER

MAXINE MCAFFEE, R.N.
NURSING DIRECTOR

MAREN DURTSCHI, R.N.
COMMUNITY HEALTH NURSE

RANAE WILLIAMS, R.D.
NUTRITIONIST/EDUCATOR

ROBERT BLANTHORN, M.S.W.
ALCOHOL/DRUG DIRECTOR

NELDA DUKE
OFFICE MANAGER

IMMUNIZATION COSTS

Nursing Salary	\$1,300
Nursing Benefits	455
Total	\$1,755

Clerical Salary	\$ 952
Clerical Benefits	333
Total	\$1,285

Administration Costs	\$ 250
----------------------	--------

Supplies	
Clinic	\$ 506
Office	80
Postage	132
Total	\$ 718

Total \$4,008

Total Immunization 1985 = 1395 doses

$\$4,008 / 1395 = \$2.87 / \text{dose}$

Figures are based on - 132 hours nursing time per year
126 hours clerical time per year

TABULATION TOTALS FOR IMMUNIZATION CLINICS

YEAR 1985

MONTH	POLIO	DPT	DT	MMR	MUMPS	MR	FLU	MONTHLY TOTAL
JAN. 85	9	20		8				37
FEB. 85	41	47	8	11	2	1		110
MAR. 85	45	38	5	23	2			113
APR. 85	18	24	1	22				65
MAY 85	42	44		4				90
JUNE 85	59	69	5	23				156
JULY 85	60	69	3	15				147
AUG. 85	56	65	7	7				135
SEP. 85	30 61	32 65		16 11				142
OCT. 85			5				189	189 FLU
NOV. 85	40	56	1	9				106
DEC 85	67	74	6	20	1			168
JAN. 86							29	29 FLU
FEB 85	19	21	2	5			1	48
TOTAL	547	624	43	174	5	1	219	1613

February 14, 1986
Draft

Community Relations Plan

**Olsen-Neihart
Wasatch County, Utah**

Index

	<u>Page</u>
Section A	
- Site Background	3
- Community Relations	4
Section B Objectives	5
Section C Community Relations Techniques	5
Section D Schedule	6
Section E Mailing List	7

Section A

Site Background

The Olsen-Neihart Reservoir Tailings site is located in Wasatch County, southeast of Park City, Utah in the McHenry Creek drainage. The Olsen-Neihart Reservoir received mine and mill tailings from the now-defunct Mayflower Mine during the 1960's and 1970's. Mill tailings were produced by the flotation treatment of ores from the mine. Copper, lead, zinc, silver, and gold were extracted. The mine itself is located about 1.25 miles upstream from the reservoir. About 200,000 cubic yards of tailings were roughly estimated to have been deposited downstream from the minesite, in and near the reservoir. McHenry Creek received the tailings upstream from Olsen-Neihart and transported the tailings downstream to the reservoir. The exact method for transporting the tailings to the Olsen-Neihart Reservoir is currently unknown; a slurry pipe also may have been used.

The reservoir is an old mill tailings pond that is currently being utilized as an irrigation water impoundment. At one time, the water from the reservoir was utilized by an LDS church stake farm to water dairy cattle and irrigate pastures on the dairy farm (the stake farm is now reported to be closed). The Olsen-Neihart Reservoir currently furnishes irrigation water for approximately 700 hundred acres of land. There are six wells within one mile of the tailings site.

McHenry Creek passes through the tailings site. McHenry Creek is a tributary of the Provo River, and water from the McHenry Creek drainage is impounded in the Deer Creek Reservoir, which furnishes drinking water to about 60 percent of the population of Salt Lake County (estimated potential affected population is 264,000).

The Bureau of Reclamation sampled the water in the Olsen-Neihart reservoir in October 1978. The water in the reservoir had a pH of 4.8, and relatively high concentrations of zinc (5 mg/l), copper (0.6 mg/l), manganese (13.0 mg/l), iron (3.2 mg/l), and cadmium (.038 mg/l). No aquatic life was observed in the reservoir at that time. Subsequent samples from the reservoir have not shown these characteristics of low pH and elevated concentrations of metals. During a visit to the reservoir in August, 1985 by the Utah Bureau of Hazardous Waste personnel, approximately 95 percent of the reservoir bottom supported dense stands of rooted aquatic plants. Some schools of very small fish were noted, as were aquatic insect larvae.

The U.S. Bureau of Reclamation is planning to construct a dam near the town of Jordanelle, and the water impounded by the dam would likely inundate the Olsen-Neihart tailings site. There is concern that, under anaerobic conditions which are likely to prevail at least part of the time, heavy metals could leach from the tailings. As the Jordanelle Reservoir would furnish water for recreational, irrigation, and drinking water for a substantial population, there is concern about the degree of contamination that the tailings may cause.

In early January 1984 the Utah Bureau of Solid and Hazardous Waste was informed that mill tailings were located within the proposed Jordanelle Reservoir basin. The tailings were deposited by the Mayflower Mine operation in the late 60's and early 70's. After initial deposition some of the tailings were used to build the Olsen-Neihart reservoir to retain irrigation water.

Because the tailings were deposited prior to November 1980, they were evaluated under the CERCLA. During the subsequent investigation, evidence was found to indicate that heavy metals were being released into the surface and ground waters. EPA was given this information and they then scored the site for inclusion on the proposed National Priority List for Superfund action. It is the State of Utah's concern that if the tailings are not relocated or stabilized they could effect the quality of the water in the municipal and industrial system. The tailings are located in the drainage of the north arm of the proposed reservoir. If the north arm becomes eutrophic and anoxic conditions occur, heavy metals could leach from the tailing and bottom sediments. Under such conditions, metals could then be released to surface and ground waters impacting public health and aquatic life.

Community Activities

Dwellings nearest to the Olsen-Neihart tailings site are located at Hailstone Junction. These dwellings are using private wells for drinking water, and samples from these wells show compliance with drinking water standards.

Community involvement has been primarily from the county commission. Private plans exist to develop a recreational ski area, Mayflower Mountain Ski Resort, in the area immediately 1/4 mile north and west of the site. The economic advantages to the county from these plans have generated interest in resolving the Superfund concerns.

The County Commission is also concerned because the tailings are located northeast of the Jordanelle damsite and would eventually be covered by the Jordanelle Reservoir. The Jordanelle dam project is a primary feature of the Bonneville Unit of the Central Utah Project. The tailings, after completion of the dam, would be covered by water approximately 90% of the time. The remaining 10% of the time the tailings could be affected by wave action. Work is scheduled to begin on the dam within the next five years. Relocation for the five homes nearest to the Olsen-Neihart Reservoir will then be required.

The Bureau of Reclamation has played a key role in dealing with the tailings. They have a Jordanelle Technical Advisory Committee that has been briefed frequently on the status of the Olsen-Neihart site. Members of the Wasatch County Commission, and their consultants are active members of this body. On March 5, 1984, the Utah Division of Environmental Health provided to the Advisory Committee a comprehensive briefing on the CERCLA process and the status of the Olsen-Neihart site. This committee has been a broad avenue for information dissemination. (The Bureau of Reclamation also addressed the concern of the site in their November 1984 Proposed Deer Creek Reservoir and Proposed Jordanelle Reservoir Water Quality Management Plan.)

Section B - Objectives

- ~~Provide accurate and timely information to the community to assure residents of a smooth transition through the study phase and potential cleanup activities.~~
- Provide citizens, elected officials and media with regular updates of progress and findings of the Remedial Investigation and Feasibility Study.
- Provide opportunity for all concerned to comment on remedial action alternatives identified by the Feasibility Study prior to final selection of a remedy.
- Summarize community concerns discovered during community relations activities throughout Remedial Investigation. Use local concerns as one criterion in the Selection of Criteria for Evaluation of Alternatives.

Section C - Community Relations Techniques

1. Fact Sheet Mailings

Fact Sheets will be mailed to interested persons and groups as often as necessary. The fact sheet will contain information detailing the current activities at the site, any health concerns that may have become evident and announcement of any events that may be of interest concerning the site.

2. News Release

News Releases will be issued as items arise that will be of interest to the general public. Fact sheets will accompany these releases to assure accurate dissemination of the information. Significant events will be earmarked for news releases, e.g., selection of consultant, completion of site characterization, final RI and FS Reports, and any public meetings.

3. Public Meetings

Public Meetings will be held to introduce the community to the remedial investigation and feasibility plans. Citizens will be given opportunity to ask questions of the consultant. Any areas of special concern will also be considered as public meeting subject potential. These meetings are in addition to the public hearing/public meeting requirement that accompanies the Record of Decision.

4. Information Repository

An information repository will be established at the County Commission Offices for citizens to review current information on the site activities. This information will be a current fact sheet, any reports issued by the consultants, news releases, and any other information that may be of interest. It will be updated monthly, or as often as necessary.

PARTIAL LISTING OF HEBER VALLEY
GROUNDWATER RELATED PUBLICATIONS

- 1970 "Water Resources of the Heber-Kamas-Park City Area." Technical Report No. 27 by State of Utah Department of Natural Resources. This report first documented the relationship of surface to groundwater in Heber Valley.
- 1972 Wasatch County Master Plan. Recognized that groundwater and surface water are co-mingled and the need to protect both by local zoning policies or planning.
- 1976 "Assessment of Groundwater Quality in the MAG Area." MAG 208 Technical Working Paper No. 24. Serious potential groundwater pollution problems were identified.
- 1977 "Water Quality Assessment of Lakes and Reservoirs." MAG 208 Technical Working Paper No. 14. Identified about 12% of the pollution coming from groundwater entering the lake. *
- 1977 "MAG 208 Water Quality Management Plan." Recommended a "scientifically-controlled investigation on non-point pollutant contribution.... as well as an overall evaluation of the impact of septic tanks on groundwater quality...."
- 1981 "A Summary and Evaluation of Shallow Groundwater Contamination Hazards in the State of Utah." This research by the USU Water Research Lab included investigations in Heber Valley and identified sources of groundwater contamination.
- 1981 "Impact of Septic Tank Systems on Ground and Surface Water in Mountainland Area." Showed the most serious problem is the vulnerability of the aquifer to surface wastes. *USU found pollution of some wells.*
- 1984 "Deer Creek Reservoir and Proposed Jordanelle Reservoir Water Quality Management Plan." Indicated about 14% contribution of pollutants into Deer Creek reservoir from groundwater and need for further research and documentation of the long-range effects. *
- 1984 "State of Utah Deer Creek Reservoir Phase I Clean Lakes Study." Conclusions showed about 1160 kg/yr of phosphorus entering lake from groundwater.
- 1985 State of Utah began to develop a Groundwater Protection Strategy as mandated by EPA.
- 1986 "Deer Creek and Jordanelle Reservoir Water Quality Monitoring and Implementation Plan." Initiated a groundwater monitoring program for first time. Includes 24 sites to be monitored four times per year. Budget of about \$17,000.
- 1986 State of Utah Division of Water Resources. Starting an overall groundwater resource document and water budget in Heber Valley to determine changes in groundwater patterns.

US Geological Survey

Ohen Heil
Mayflower

In early January 1984, the Utah Bureau of Solid and Hazardous Waste was informed that the Olsen-Neihart tailings were located within the proposed Jordanelle Reservoir basin, and the water impounded by the dam would likely inundate the Olsen-Neihart tailings site. A study by the USBR (Craft, 1983) suggested that, under worse-case conditions, significant quantities of heavy metals would be released to the Jordanelle water. As the Jordanelle Reservoir would furnish water for recreational, irrigation, and drinking water for a substantial population, there is concern about the degree of contamination that the tailings may cause.

Is there an Immediate Health Hazard Associated with the Site?

The tailings, as they exist now, are not thought to pose a substantial threat to public health or the environment. The major concern with the Olsen-Neihart Reservoir Tailings is the potential for contamination after the Jordanelle Dam is finished. If the tailings release the quantities of heavy metals hypothesized in the 1983 USBR study, the water quality of the Jordanelle Reservoir would be adversely impacted.

What Steps will be Taken Now?

Since the listing of the Olsen-Neihart Reservoir on the NPL in October, 1984, EPA published the proposed sites in the Federal Register and offered a public comment period of 60 days. EPA is presently reviewing those comments. The initial schedule of activities calls for a remedial investigation (RI), which is a characterization of the hazards posed by a particular site, to be completed in 1987. A feasibility study (FS), which is a determination of possible remedies for a site, is scheduled to be submitted by the end of 1987. The actual workplan elements of the remedial investigation and feasibility study will be done by the State. Funds for these studies are received through the Superfund program. Even though the timeframe appears lengthy, it is important to perform different sampling analyses on various aspects of the tailings through the different seasonal changes.

A Community Relations Program will also be implemented that will allow the citizens, and elected officials opportunity to meet regularly with state officials.

What is the State's Role in Superfund and How does it relate to EPA's Activities?

Under CERCLA, EPA can provide funds to states for certain activities at Superfund sites. The State of Utah has accepted lead responsibility for Superfund sites in Utah and has entered into a Multi-Site Cooperative Agreement with EPA. This agreement provides the ability for the Division of Environmental Health to serve as the lead management agency in addressing this site, as well as three other sites currently proposed for the NPL. In this role, the Division has full responsibility for implementing responses at these sites, consistent with existing State authority and pursuant to guidance and oversight from EPA.

People to contact in the State and are listed below:

UTAH DIVISION OF ENVIRONMENTAL HEALTH
P.O. Box 45500
Salt Lake City, UT 84145
533-4145

Muhammad Slam
Project Manager

Nancy Sechrest
Community Relations Coordinator



UTAH SUPERFUND FACT SHEET



REGION VIII

February 1986

Olsen-Neihart Reservoir Wasatch County

What is Superfund?

Superfund is a national trust fund established by Congress to pay for investigation and cleaning up of sites where past improper disposal of hazardous wastes or spills of hazardous substances threaten public health or the environment. Established by the 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the fund is managed by the Environmental Protection Agency (EPA). The \$1.6 billion fund is 86% financed by taxes on the manufacture or import of certain chemicals and petroleum products, with the remainder coming from general tax funds.

What is the National Priorities List (NPL) and What Qualifies a Site for Proposal?

CERCLA requires EPA to establish a list of priority sites where releases of hazardous substances to the environment are either actual or potential threats to public health or the environment. Sites must be listed on the NPL to qualify for cleanup or study funding under Superfund.

EPA evaluates potential sites using a numerically-based technical scoring system (the Hazard Ranking System, or HRS). The site score is based on actual or potential threat to ground water, surface water, air, and the population at risk. Sites scoring sufficiently high are proposed in the Federal Register for the list. After a 60-day public comment period, the EPA Administrator decides if the sites will be listed and the final NPL is printed in the Federal Register.

As of September, 1985, there are currently 850 sites on or proposed for the NPL nationwide. Ten of these sites are located in Utah: Rose Park Sludge Pit, U.S. Smelting Mining and Refining Company, Portland Kiln Dust in Salt Lake County; Olsen-Neihart Reservoir and Mayflower Tailings in Wasatch County; Radiation-contaminated structures in San Juan County; Hill Air Force Base in Davis County; Ogden Defense Depot in Weber County; Tooele Army Depot in Tooele County; and Silver Creek Tailings in Summit County.

Why Was the Olsen-Neihart Reservoir Proposed for the NPL?

Tailings from Hecla Mining Co.'s Mayflower operations are impounded by the dam forming Olsen-Neihart Reservoir. McHenry Creek, a tributary of the Provo River, passes through this reservoir and eventually enters the Deer Creek Reservoir. Because the McHenry Creek provides a potential pathway for heavy metals in the tailings to migrate into a drinking water source, health officials began reviewing sampling reports to determine the extent of contamination reaching the Provo River from the Olsen-Neihart Reservoir.

The U.S. Bureau of Reclamation sampled the water in the Olsen-Neihart reservoir in October 1978. The results indicated that the water in the reservoir had a pH of 4.8, and relatively high concentrations of zinc (5 mg/l), copper (0.6 mg/l), manganese (13.0 mg/l), iron (3.2 mg/l), and cadmium (.038 mg/l). No aquatic life was observed in the reservoir at that time. Follow-up studies by the Utah Department of Health and the USEPA indicated the tailings in the reservoir have the potential to contaminate surface and ground water in the area.



UTAH DEPARTMENT OF HEALTH
DIVISION OF COMMUNITY HEALTH SERVICES
BUREAU OF EPIDEMIOLOGY

Suzanne Dandoy, M.D., M.P.H.
Executive Director

COMMUNICABLE DISEASE NEWSLETTER

J. Brett Lazar, M.D., M.P.H., Director
Division of Community Health Services

EDITOR: Craig R. Nichols, M.P.A., State Epidemiologist
Director, Bureau of Epidemiology
(801) 533-6191

MONTH March YEAR 1986

CONTENTS

1. WE HAVE MOVED
2. Giardiasis in Travelers
Returning from the Soviet Union
3. Recommendations for Measles
Vaccination for International
Travel
4. Ciguatera Fish Poisoning
5. Additional Recommendations to
Reduce Sexual & Drug-Related
Transmission of HTLV-III/LAV

WE HAVE MOVED

The Bureau of Epidemiology has now moved to the new Utah
Department of Health Building located at 288 North 1460 West
in Salt Lake City. Our mailing address is:

Bureau of Epidemiology
Utah Department of Health
P. O. Box 16700
Salt Lake City, Utah 84116-0700
(801) 538-6191

All four of our programs, Communicable Disease Control, Epidemiological
Studies, Immunization and Sexually Transmitted Disease Control, will be
located on the second floor in the East Wing (Valley side).

Our telephone number has been changed to (801) 538-6191. Those of you
with FTS access can still reach us at 588-5934. (As there may be a delay in
moving the FTS line, please use the commercial number if unable to reach us
during the interim.)

We are looking forward to servicing you in our new offices.

GIARDIASIS IN TRAVELERS RETURNING FROM THE SOVIET UNION¹

"Giardia lamblia is a protozoan parasite of the small intestine.
Infection with this organism can be symptom-free or can be associated with
symptoms resembling a malabsorption syndrome. The symptoms include diarrhea,
which is often greasy and malodorous, abdominal cramps, fatigue, weight loss,
flatulence, anorexia, and nausea. Fever and vomiting are uncommon. The
incubation period is 1 to 14 weeks, and the duration of illness when untreated
varies from 2 weeks to several months.

"Giardiasis in travelers returning from the Soviet Union has been
recognized in the United States since 1969. Patients usually become
symptomatic toward the end of their trip or shortly after their return home.
Data on 47 tour groups traveling to Russia between 1972 and 1973 showed that
23 percent of 1,419 persons were ill with giardiasis. In prospective studies,
80 percent of American and 35 percent of Finnish travelers to Leningrad who
were stool negative for Giardia on departure to the Soviet Union developed

symptoms of giardiasis and were stool positive for Giardia when they returned home. These data, as well as more recent data, continue to implicate Leningrad as the principal site of infection within the Soviet Union, with ingestion of tap water as the probable mode of transmission. While travelers to Mexico and several countries in Asia, Africa, South America and Central America may also risk infection, fewer than 3 percent of travelers with diarrhea returning from these countries have been found to be infected with Giardia.

"There is no known chemoprophylaxis for giardiasis. Travelers to an endemic area such as Leningrad should be advised that the best way to prevent infection is to eat only foods that can be peeled or have been cooked, and to drink only boiled water or bottled carbonated water, other beverages that have been boiled, bottled carbonated soft drinks, beer, or wine. Tap water used for brushing teeth and for ice in drinks may also be a source of infection. In the environment, Giardia lamblia exists as a hardy cyst which can survive for at least 2 months in cold (4° C) water and for at least several days in tap water (15-20° C). The cyst is also resistant to amounts of chlorine (0.5 mg/liter) routinely used to disinfect municipal water supplies.

"Persons returning from travel to endemic areas have sometimes experienced long delays before the correct diagnosis or their illness was made. All travelers returning from the Soviet Union who develop a diarrheal illness lasting more than 5 days should consult a physician and have a stool specimen examined for parasites. Those individuals found to be infected with Giardia can be treated by their physician with either quinacrine hydrochloride (100 mg 3 times a day for 5 to 7 days) or metronidazole (250 mg 3 times a day for 10 days). These drugs are effective in both asymptomatic and symptomatic infections."

Reference: ¹ Centers for Disease Control, U.S. Public Health Service
Advisory Memorandum No. 86, March 12, 1986.

RECOMMENDATIONS FOR MEASLES VACCINATION FOR INTERNATIONAL TRAVEL¹

"Although vaccination against measles is not a requirement for entry into any country, measles is endemic in most countries and it is advisable that travelers be immune. A physician's documentation of prior measles disease or of measles vaccination constitutes evidence of immunity. Most persons born before 1957 are likely to have been infected naturally and need not be considered susceptible. Persons born in 1957 or later should review their immunization status.

"In the United States, measles vaccine, preferably in combination with rubella and mumps vaccine (i.e., MMR vaccine), should be administered subcutaneously to all children 15 months of age and older. The age at vaccination should be lowered for those children traveling to areas where measles is endemic or epidemic. Children 12-14 months of age may receive MMR before their departure, without need for revaccination. Children 6-11 months of age should receive a dose of single measles antigen vaccine (without rubella or mumps antigens) before departure and must be revaccinated with MMR vaccine. While the optimal age at revaccination is 15 months, the age at revaccination may be as low as 12 months if the child remains in a high-risk area. In this situation, further doses of measles vaccine are not indicated. Since virtually all infants less than 6 months of age will be protected by maternally-derived antibodies, no additional means to provide protection against measles is generally necessary.

"These recommendations are intended to protect the health of the United States public as well as the international traveler. No immunization or immunization records are required to enter the United States."

Reference:

- ¹ Centers for Disease Control, U.S. Public Health Service Advisory Memorandum No. 85, March 12, 1986.

CIGUATERA FISH POISONING¹

"Ciguatera is a form of poisoning caused by eating fish such as red snapper, grouper, barracuda, amberjack, surgeonfish, sea bass, and a wide range of other tropical reef fish. In the Caribbean, ciguatera fish poisoning has been reported recently in residents of and visitors to the U.S. Virgin Islands, the U.K. Virgin Islands, Puerto Rico, the Bahamas, and Nevis. However, the potential for ciguatera poisoning exists in all subtropical and tropical insular areas of the West Indies, Pacific and Indian Oceans where the implicated fish species are consumed.

"Ciguatera poisoning may produce gastrointestinal and neurologic symptoms, shock, and, infrequently, death. Among the more common symptoms are diarrhea, vomiting, abdominal cramps, sweating, chills, prostration, muscle and joint pain, paralysis, reversal of hot and cold sensation, tingling or numbness of the mouth, dizziness, and blurred vision or temporary blindness. In more severe cases, cardiovascular collapse or respiratory failure may occur. Neurologic symptoms may persist for weeks or months.

"There is no practical way for consumers to identify affected fish since the appearance, smell, and taste are unchanged (although a slight metallic taste may occasionally be noticed). Since the toxin is heat-stable, cooking does not make the fish safe to eat. The only effective preventive measure is to abstain from eating red snapper, grouper, barracuda, amberjack, surgeonfish, sea bass, and other tropical reef fish. Because the nature of the symptoms may produce diagnostic confusion, it is important for travelers who may have eaten implicated fish and who subsequently develop symptoms compatible with ciguatera fish poisoning to remember to inform their physicians of the exposure to tropical reef fish."

- Reference: ¹ Adapted from Centers for Disease Control, U.S. Public Health Service Advisory Memorandum No. 84, February 7, 1986.

ADDITIONAL RECOMMENDATIONS TO REDUCE SEXUAL AND DRUG-RELATED TRANSMISSION OF HUMAN T-LYMPHOTROPIC VIRUS TYPE III/LYMPHADENOPATHY-ASSOCIATED VIRUS¹

Human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV) the virus that causes acquired immunodeficiency syndrome (AIDS), is transmitted through sexual contact, parenteral exposure to infected blood or blood components, and perinatally from mother to fetus or neonate. Since a large proportion of seropositive asymptomatic persons have been shown to be viremic, all seropositive individuals, whether symptomatic or not, must be presumed capable of transmitting this infection.

The recommendations on the following page were developed by the U.S. Public Health Service to help interrupt transmission by encouraging testing and counseling of persons in high-risk groups. (References are available on request.)

PERSONS AT INCREASED RISK OF HTLV-III/LAV INFECTION

Persons at increased risk of HTLV-III/LAV infection include: (1) homosexual and bisexual men; (2) present or past IV drug abusers; (3) persons with clinical or laboratory evidence of infection, such as those with signs or symptoms compatible with AIDS or AIDS-related complex (ARC); (4) persons born in countries where heterosexual transmission is thought to play a major role^{*}; (5) male or female prostitutes and their sex partners; (6) sex partners of infected persons or persons at increased risk; (7) all persons with hemophilia who have received clotting-factor products; and (8) newborn infants of high-risk or infected mothers.

RECOMMENDATIONS

1. Community health education programs should be aimed at members of high-risk groups to: (a) increase knowledge of AIDS; (b) facilitate behavioral changes to reduce risks of HTLV-III/LAV infection; and (c) encourage voluntary testing and counseling.
2. Counseling and voluntary serologic testing for HTLV-III/LAV should be routinely offered to all persons at increased risk when they present to health-care settings. Such facilities include, but are not limited to, sexually transmitted disease clinics, clinics for treating parenteral drug abusers, and clinics for examining prostitutes.
 - a. Persons with a repeatedly reactive test result (see section on Test Interpretation) should receive a thorough medical evaluation, which may include history, physical examination, and appropriate laboratory studies.
 - b. High-risk persons with a negative test result should be counseled to reduce their risk of becoming infected by:
 - (1) Reducing the number of sex partners. A stable, mutually monogamous relationship with an uninfected person eliminates any new risk of sexually transmitted HTLV-III/LAV infection.
 - (2) Protecting themselves during sexual activity with any possibly infected person by taking appropriate precautions to prevent contact with the person's blood, semen, urine, feces, saliva, cervical secretions, or vaginal secretions. Although the efficacy of condoms in preventing infections with HTLV-III/LAV is still under study, consistent use of condoms should reduce transmission of HTLV-III/LAV by preventing exposure to semen and infected lymphocytes (9,10).
 - (3) For IV drug abusers, enrolling or continuing in programs to eliminate abuse of IV substances. Needles, other apparatus, and drugs must never be shared.
 - c. Infected persons should be counseled to prevent the further transmission of HTLV-III/LAV by:
 - (1) Informing prospective sex partners of his/her infection with HTLV-III/LAV, so they can take appropriate precautions. Clearly, abstention from sexual activity with another person is one option that would eliminate any risk of sexually transmitted HTLV-III/LAV infection.
 - (2) Protecting a partner during any sexual activity by taking appropriate precautions to prevent that individual from coming into contact with the infected person's blood, semen, urine, feces, saliva, cervical secretions, or vaginal secretions. Although the efficacy of using condoms to prevent infections with HTLV-III/LAV is still under study, consistent use of condoms should reduce transmission of HTLV-III/LAV by preventing exposure to semen and infected lymphocytes (9,10).
 - (3) Informing previous sex partners and any persons with whom needles were shared of their potential exposure to HTLV-III/LAV and encouraging them to seek counseling/testing.

- (4) For IV drug abusers, enrolling or continuing in programs to eliminate abuse of substances. Needles, other apparatus, and drugs must never be shared.
 - (5) Not sharing toothbrushes, razors, or other items that could become contaminated with blood.
 - (6) Refraining from donating blood, plasma, body organs, other tissue, or semen.
 - (7) Avoiding pregnancy until more is known about the risks of transmitting HTLV-III/LAV from mother to fetus or newborn (8).
 - (8) Cleaning and disinfecting surfaces on which blood or other body fluids have spilled, in accordance with previous recommendations (2).
 - (9) Informing physicians, dentists, and other appropriate health professionals of his/her antibody status when seeking medical care so that the patient can be appropriately evaluated.
3. Infected patients should be encouraged to refer sex partners or persons with whom they have shared needles to their health-care provider for evaluation and/or testing. If patients prefer, trained health department professionals should be made available to assist in notifying their partners and counseling them regarding evaluation and/or testing.
 4. Persons with a negative test result should be counseled regarding their need for continued evaluation to monitor their infection status if they continue high-risk behavior (8).
 5. State and local health officials should evaluate the implications of requiring the reporting of repeatedly reactive HTLV-III/LAV antibody test results to the state health department.
 6. State or local action is appropriate on public health grounds to regulate or close establishments where there is evidence that they facilitate high-risk behaviors, such as anonymous sexual contacts and/or intercourse with multiple partners or IV drug abuse (e.g., bath-houses, houses of prostitution, "shooting galleries").

TEST INTERPRETATION

Commercially available tests to detect antibody to HTLV-III/LAV are enzyme-linked immunosorbant assays (ELISAs) using antigens derived from disrupted HTLV-III/LAV. When the ELISA is reactive on initial testing, it is standard procedure to repeat the test on the same specimen. Repeatedly reactive tests are highly sensitive and specific for HTLV-III/LAV antibody. However, since falsely positive tests occur, and the implications of a positive test are serious, additional more specific tests (e.g., Western blot, immunofluorescent assay, etc.) are recommended following repeatedly reactive ELISA results, especially in low-prevalence populations. If additional more specific test results are not readily available, persons in high-risk groups with strong repeatedly reactive ELISA results can be counseled before any additional test results are received regarding their probable infection status, their need for medical follow-up, and ways to reduce further transmission of HTLV-III/LAV.

Reference:

- ¹ Adapted from Centers for Disease Control, *Morbidity and Mortality Weekly Report*, Vol. 35/No. 10, March 14, 1986.

^{*}e.g., Haiti, Central African countries

MINUTES OF THE WASATCH CITY/COUNTY BOARD OF HEALTH

March 17, 1986

12:10 P.M.

County Services Complex

Present were:

Calvin Giles	Chairman
Connie Tatton	Vice-chairman
Rulon Phillips	Member
Elizabeth Murdock	Member
R. Raymond Green, MD	Medical Officer
Phil D. Wright, R.S., M.S.	Health Officer
Maxine McAfee, RN	Nurse Supervisor
Robert Blanthorn	Alcohol/Drug Director
Larry Carcelli, Ph.D.	Mental Health Counselor
Nelda Duke	Secretary

Excused:

R. C. Tadd
Lynn Webster

Welcome: Mr. Giles welcomed those present and called the meeting to order.

Invocation: Mrs. Duke offered the opening prayer.

Minutes: Minutes of the meeting held February 10, 1986 were read by Mrs. Duke. Mrs. Tatton made a motion minutes be approved as read. Mrs. Murdock seconded motion. Motion carried.

Mental Health Report: Mr. Carcelli reported he is serving 20 to 30 people and most referrals are coming from those who have been served by his department. The program seems to be going very well.

Nurse Report: Mrs. McAfee reported the following:

WIC: We now have 309 clients being served on the WIC program. This is about 150 families.

Well Child: Seventeen children were seen in our Well Child clinic in February.

Immunization Clinic: At the two immunization clinics held in February there were 108 doses of vaccine given.

Hypertension: Twenty two clients were checked for hypertension in our blood pressure clinic in February.

Fluoride Program: We have received our fluoride to be distributed to children up to 14 years of age and have already given out several bottles at a nominal fee.

"Smile Factory": At our dental health screening program three local dentists helped screen 130 3rd, 4th and 5th grade students from the

Central Elementary School. Ten children were identified for the "Smile Factory" program. Twenty children who needed to see their own dentist for cavaties and three children who have tongue thrust. We feel the program was very successful.

Pregnancy
Testing:

Mrs. McAfee stated we have received free pregnancy testing kits from the state. This program is to try and get women in for early pregnancy care. Those women who do not get early care are more likely to have a high mortality rate and lower birth weight. Mrs. McAfee asked for suggestions as to how we make women aware of this testing program.

After some discussion Dr. Green suggested we let doctors know why we are doing this and then send letters to school counselors as well as putting it in the local paper and by word of mouth.

Mountain-
lands
Contract:

There was some discussion as to other services we could offer senior citizens through our Mountainlands contract. Mrs. McAfee said she had spoke with Dr. Soulier, Podiatrist, to see if he would be willing to check senior citizens feet at medicare prices.

After some discussion Mrs. Murdock made a motion we add EKG testing to the senior citizens health services through the Mountainlands contract. Mrs. Tatton seconded motion. Motion carried.

Health Fair:

Mr. Wright stated the health fair has been scheduled for April 26th in the middle school. The alcohol/drug department is organizing the fair again this year. We need another sponsoring agent for next year as our department is too small to sponsor it each year. After some discussion it was suggested we contact the county hospital and see if they would be willing to sponsor it next year.

EMS:

Mr. Wright stated the Emergency Medical Services council is in the process of writing a grant for extrication equipment. The bid has to be in by the end of the month and the EMT and county will help with match funds.

Asbestos
Survey:

Mr. Wright said he would begin the asbestos survey this week and there are 23 buildings to be inspected.

Hot Springs:

Mr. Wright said he had sent a letter to Carole Mangum regarding the hot springs problem in Midway but she did not accept the letter. After some investigation it showed Ken Johnson actually still owns the property. He talked with Ken Johnson and his son Keith Johnson and they posted a "no trespassing" sign. Since then the sheriff has picked up several people in that area.

Wood & Coal Stoves: Mr. Wright said a hearing on wood and coal stoves will be held April 24th at the courthouse. (See enclosed copy #1).

Ex-officio Board Member: Mr. Wright asked how the board felt about inviting an ex-officio member to join our board. After some discussion Mrs. Tatton made a motion we ask the school board to appoint a member of their board to be an ex-officio member to the board of health and send a copy of our minutes of our monthly meetings to the school board president. Mrs. Murdock seconded the motion. Motion carried.

Gramm Rudman Act: Phil stated the Gramm Rudman Act requires the Federal Government to balance their budget. Therefore our department is experiencing cuts in our grants. There is a 4.3% (\$1400) cut in our MCH grant this year. Next year we expect a 17 to 25% cut (\$8300) out of MCH monies.
The WIC program is exempt from these cuts.
The health officers recommended we raise the cost of administering vaccine to \$3.00 per dose as polio and DPT costs have doubled.

Hib Vaccine: Mr. Wright also stated we will be able to administer the Hib vaccine next year.

Highlight Bd. Members: Mr. Wright asked how the board felt about highlighting board members in the local paper.
Mrs. Tatton suggested we highlight our programs and services along with the board members.

Alcohol/ Drug Report: Mr. Blanthorn reported the alcohol/drug program will also experience cuts in their monies. Otherwise the program seems to be going quite well.

Next Meeting: The next meeting was scheduled for Monday, April 21, 1986 at 12:00 P.M. in the county services complex.

Meeting adjourned at 2:00 P.M.

Chairman